

Interactive comment on “Reconstruction of sub-daily rainfall sequences using multinomial multiplicative cascades” by L. Wang et al.

Anonymous Referee #2

Received and published: 27 September 2010

The paper presents a methodology to obtain sub-daily rainfall sequences, to be used in flood protection framework.

Generally, when a disaggregation methodology is applied, some characteristics of rainfall process must be preserved (for example rainfall amounts, mean, proportion of dry intervals and so on).

From the shown results, it seems that the authors partially met the aim to reconstruct rainfall sequences, even if some quantities are underestimated (intensities- Fig4, proportion of dry periods- Fig6).

I do not enter in the formal definition of multinomial multiplicative cascade, fragmenta-

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tion ratios and weight, given that the Referee S.Lovejoy already did it.

The paper is however well structured, and there are only some general remarks about it.

Even if formally could be some clarification to do, the results obtained seems interesting, so could be useful to extend the methodology and validation sections, to better explain the steps to perform the methodology and analitically clarify them. Moreover, a larger number of simulations could help to evaluate the reproducibility of statistics. Also indicate some key rainfall characteristics to preserve would help to assess the utility/capability of the proposed methodology.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 5267, 2010.

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